

Appl. No. 10/613,426
Amd. Dated September 23, 2005
Reply to Final Office Action of July 25, 2005

REMARKS/ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

Of previously pending claims 1-23, claims 12-14 and 21-23 were rejected under 35 U.S.C. §112, 2nd paragraph, for indefiniteness. Claims 12 and 21 (and 5) have accordingly been amended to address the Examiner's objection with respect to the phrase, "an identification tag." The last line of claim 1 was also amended to correct a typographical error.

Claims 1-4, 8-11 and 17-20 were rejected under 35 U.S.C. §103(a) as being obvious over previously cited U.S. Patent Application No. 2003/0074449, published April 17, 2003, R. Smith *et al.*, inventors, in view of previously cited U.S. Patent Application No. 2002/0004842, published January 10, 2002, K. Ghose *et al.*, inventors. Claims 5-7, 12-16 and 21-23 were rejected under 35 U.S.C. §103(a) as being obvious over the combination of the Smith and Ghose patent applications in view of U.S. Patent Application No. 2003/0185223, published October 2, 2003, M. Tate *et al.*, inventors.

In rejecting independent claims 1, 8 and 17, the Examiner stated:

...Smith discloses, in Figs. 3-5, a method for...

However, Smith does not disclose a flow control based on the number of bytes available in the remote transport interface buffer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching from Ghose of a flow control based on the number of bytes to the frame based protocol networks disclosed by Smith. The suggestion/motivation for doing so would have been that Smith discloses on column 5, paragraph 0093 "the number of packets in transit on the link cannot exceed the buffer credits assigned to the link", thereby combining [sic] the flow control base [sic] on bytes with the number of packets in transit on the link cannot exceed the buffer credits assigned to the link would greatly improved [sic] end-to-end latency and implement reliable delivery (0054).

The applicants had previously argued against this reasoning and rejection. In responding to the applicants in the outstanding Office Action, the Examiner stated:

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Examiner agrees with Applicant that Smith and Ghose references teach different types of networks. However, the primary reference (Smith) discloses a buffer-to-buffer flow control mechanism over a packet oriented (SDH/SONET) transmission network except for a flow control based on the number of bytes. Ghose teaches buffer-to-buffer credits (over a packet oriented transmission network) for implementing flow control based on the number of bytes received successfully. Ghose reference is used to show how bytes are used for implementing flow control over a packet oriented transmission network.

Nonetheless, the applicants respectfully disagree. The purported motivation suggested by the Examiner is one of hindsight based upon the applicants' teachings and the purported combination of the Smith and Ghose references does not reach the applicants' claims. Neither of these is an acceptable basis for rejecting the applicants' claims.

The applicants do not see in the Smith application any reference to a problem or dissatisfaction with using frame counts for buffer flow control. The supposed motivation cited by the Examiner, i.e., the data packet protocol that "the number of packets in transit on the link cannot exceed the buffer credits assigned to the link", page 5, paragraph 0093, is refuted by the following paragraph in the Smith reference. "Advantageously, the invention uses the buffer credit link flow control mechanism of Fibre Channel, and ESCON, to ensure that no buffer overflow occurs...". Page 5, paragraph 0094. The applicants respectfully request that the Examiner specifically point out in the Smith application any motivation to abandon frame counts.

On the other hand, Ghose *et al.* stated the problem of TCP windowing flow control, retransmit timeout mechanism and associated overhead and addressed their problem with buffer-to-buffer credits for flow control and negative acknowledgements for reliable delivery. See paragraphs 47 and 54, in particular. Hence why a person using a Smith network system with a SONET/SDH transmission network interconnecting Fibre Channel protocol networks would use the teachings of the Ghose TCP network remains unexplained.

Secondly, the particular combination suggested by the Examiner does not reach the applicants' claims. The Examiner would use the Ghose reference "to show how bytes are used for implementing flow control over a packet oriented transmission network." Specifically,

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Ghose supposedly "teaches buffer-to-buffer credits for implementing flow control based on the number of bytes received successfully (page 4, 0055-0057) and tracking the number of bytes of GFP-encapsulated client data frames in transit from the local transport interface to the remote transport interface (0057-0062)."

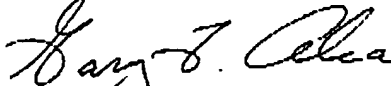
Accepting *arguendo* the combination of the Smith and Ghose applications, the Ghose application teaches a flow control mechanism using buffer credits based on bytes which is not what the applicants claim. For example, claim 1 recites, "...transmitting more GFP-encapsulated client data frames responsive to said information of said number of bytes available in said remote transport interface buffer and said number of bytes in transit from said local transport interface to said remote transport interface to maximize usage of, without overfilling, said buffer without consideration of loss or corruption of encapsulated client data frames...(underlining added)." On the other hand, the Ghose flow control mechanism uses byte ranges, not the number of bytes. "...[E]ach credit unit specifies the permission to send a unique range of bytes in the sequence...". Page 4, paragraph 0061. The Ghose flow control mechanism does not transmit data to maximize usage of the receiving buffer, but rather to "maintain a smooth flow of data from the sender to the receiver." Page 9, paragraph 0117. Nor does the Ghose flow control mechanism transmit more data responsive to the number of bytes available in the receiving buffer and the number of bytes in transit. Rather, the Ghose flow control mechanism is responsive to the smooth flow of data and avoidance of network congestion. "By delaying the sending credit installments or by changing the byte range covered by a credit unit, the receiver can regulate the amount of data a sender can send. This mechanism is used to cope with congestion in the network." Page 9, paragraph 0117. Finally, this concern for smooth flow of data and congestion reflects consideration of loss and corruption of the transmitted data, not what is recited in the claim. See in particular the second half of page 4, paragraph 0057.

Hence independent claim 1 is patentably distinguishable over the cited prior art and should be allowable. Independent claims 8 and 17 have similar language and should also be allowable. Dependent claims 2-7, 9-16 and 18-23 should also be allowed for at least being dependent upon allowable base claims.

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Therefore, the applicants request that all rejections be removed, that claims 1-23 be allowed, and the case be passed to issue. If a telephone conference would in any way expedite the prosecution of the application, the Examiner is asked to call the undersigned at (408) 868-4088.

Respectfully submitted,


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